

**REMARKS**

Entry of this Amendment is proper because it narrows the issues on appeal and does not require further searching by the Examiner.

Claims 1-7, 9-22 and 28-34 are all the claims presently pending in the application. Claims 1, 9, 20, 22 and 28-30 have been amended to more particularly define the claimed invention. Claims 35 and 36 have been canceled.

While the claim amendments made herein may help to distinguish the invention over the prior art, Applicant's intention in making the amendments is for the purpose of particularly pointing out the invention, and not for the purpose of distinguishing the invention over the prior art, narrowing the claims, or for any statutory requirements of patentability. Further, notwithstanding any claim amendments made herein, Applicant's intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

**Claims 1-16, 18, 20, 21, 28-32 and 35-36** stand rejected under 35 U.S.C. § 102(a) as being allegedly anticipated by Robillard et al. ("FEAT A tool for Locating, Describing, and Analyzing Concerns in Source Code") (hereinafter "Robillard-Murphy").

**Claim 22** stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Robillard ("A study of Program Evolution Involving Scattered Concerns") (hereinafter "Robillard") in view of Robillard-Murphy.

**Claim 17** stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Robillard-Murphy in view of Chu-Carroll (U. S. Pat. Pub. 2002/0198873).

**Claim 19** stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Robillard-Murphy in view of Robillard.

**Claim 33** stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Robillard-Murphy in view of Casati et al. (U. S. Pat. Pub. No. 2002/0174093).

**Claim 34** stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Robillard-Murphy in view of Stone et al. (U. S. Pat. No. 6,804,686).

These rejections are respectfully traversed in view of the following discussion.

## I. THE CLAIMED INVENTION

An exemplary aspect of the claimed invention (e.g., as defined by claim 1) is directed to a system for identifying concerns, including a specifying device for specifying an initial concern in a software system, and an identifying device for: using the initial concern to explore artifacts in the software system and, based on a result of the using the initial concern to explore artifacts in the software system, identifying a related concern in the software system having a relationship with the initial concern, at least one of the initial and related concerns comprising an artifact other than source code, and automatically computing a content of the related concern based on the initial concern and the relationship between the initial and related concerns (e.g., see Application at page 9, lines 19-22; page 10, lines 12-17).

These features may allow a user to conveniently explore concerns and their relationships within a system.

## II. THE ALLEGED PRIOR ART REFERENCES

### A. Robillard-Murphy

The Examiner alleges that Robillard-Murphy teaches the claimed invention of claims 1-16, 18, 20, 21 and 28-32. Applicant would submit, however, that Robillard-Murphy does not teach or suggest each and every element of the claimed invention.

In particular, nowhere does Robillard-Murphy teach or suggest an identifying device for: *"using the initial concern to explore artifacts in said software system and, based on a result of said using the initial concern to explore artifacts in said software system, identifying a related concern in said software system having a relationship with said initial concern, at least one of the initial and related concerns comprising an artifact other than source code; and automatically computing a content of said related concern based on said initial concern and said relationship between said initial and related concerns"*, as recited in claim 1 and similarly recited in claims 20, 22, 28, 29 and 30 (e.g., see Application at page 9, lines 19-22; page 10, lines 12-17). As noted above, this may allow a user to conveniently explore concerns and their relationships within a system.

Clearly, these features are not taught or suggested by Robillard-Murphy.

First, Applicant would first point out that assuming *arguendo* that the Robillard-Murphy tool (e.g., hereinafter "the FEAT tool") does support the identification of "concerns",

in an exemplary aspect of the claimed invention, a concern may contain one or more entities taken from any sort of software artifact, including source code or UML or other artifacts. The FEAT tool, on the other hand, works only on source code.

Indeed, on page 5 of the Office Action, the Examiner alleges that Robillard-Murphy teaches this feature at page 1, col. 2. However, this passage simply states that elements in the FEAT perspective can be "analyzed for their dependencies to other elements in the **source code**" and "[t]he **source code** corresponding to any element or relation can be viewed in the **code viewer**" (emphasis added). That is, nowhere does Robillard-Murphy teach or suggest "*at least one of the initial and related concerns comprising **an artifact other than source code***", as in the claimed invention.

Second, Applicant would point out that even assuming (arguendo) that the FEAT tool may detect a relation between elements in concerns (e.g., given a collection of code elements, the FEAT tool may simply identify the code elements that are related to those elements by the above-listed relationships), **the user must then manually select those related elements that should belong to the new concern, one element at a time**. An exemplary aspect of the claimed invention, on the other hand, automatically computes a content of the related concern based on the initial concern and the relationship between the initial and related concerns. Nowhere is this taught or suggested by Robillard-Murphy.

Therefore, Robillard-Murphy clearly does not teach or suggest an identifying device for: using the initial concern to explore artifacts in the software system and, based on a result of the using the initial concern to explore artifacts in the software system, identifying a related concern in the software system having a relationship with the initial concern, at least one of the initial and related concerns comprising an artifact other than source code, and automatically computing a content of the related concern based on the initial concern and the relationship between the initial and related concerns, as in the claimed invention.

Therefore, Applicant would submit that Robillard-Murphy clearly does not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

#### **B. Robillard, Chu-Carroll, Casati and Stone**

The Examiner alleges that Robillard would have been combined with Robillard-

Murphy to form the invention of claims 19 and 22, and that Robillard-Murphy would have been combined with Robillard to form the invention of claim 17, and with Casati to form the invention of claim 33, and with Stone to form the invention of claim 34.

Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Applicant respectfully submits that these references are unrelated and would not have been combined as alleged by the Examiner. Thus, no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

Further, Applicant submits that there is no motivation or suggestion in the references to urge the combination as alleged by the Examiner. Indeed, these references clearly do not teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, Applicant respectfully submits that neither Robillard, nor Robillard-Murphy, nor Chu-Carroll, nor Casati, nor Stone, nor any alleged combination thereof teaches or suggests an identifying device for: ***"using the initial concern to explore artifacts in said software system and, based on a result of said using the initial concern to explore artifacts in said software system, identifying a related concern in said software system having a relationship with said initial concern, at least one of the initial and related concerns comprising an artifact other than source code; and automatically computing a content of said related concern based on said initial concern and said relationship between said initial and related concerns"***, as recited in claim 1 and similarly recited in claims 20, 22, 28, 29 and 30 (e.g., see Application at page 9, lines 19-22; page 10, lines 12-17). As noted above, this may allow a user to conveniently explore concerns and their relationships within a system.

Clearly, these features are not taught or suggested by Robillard.

Indeed, like Robillard-Murphy, Robillard simply discloses the FEAT tool which was distinguished from the claimed invention in the Background section of the present Application (Application at page 1, line 21-page 2, line 1; page 8, lines 18-21). Indeed, as noted previously, Robillard describes his FUTURE work by stating that "we are currently

working on algorithms to support the automatic determination of concerns of interest based on navigation graphs" (e.g., see page 9, left column).

Therefore, like Robillard-Murphy, Robillard clearly does not teach or suggest an identifying device for: using the initial concern to explore artifacts in the software system and, based on a result of the using the initial concern to explore artifacts in the software system, identifying a related concern in the software system having a relationship with the initial concern, at least one of the initial and related concerns comprising an artifact other than source code, and automatically computing a content of the related concern based on the initial concern and the relationship between the initial and related concerns, as in the claimed invention.

Likewise, Chu-Carroll does not teach or suggest these features. Indeed, Chu-Carroll simply discloses querying software code stored in a database, the software code including a plurality of units of executable program code. In particular, Chu-Carroll states that the "idea of multidimensional separation of concerns has been explored in the software engineering community" (Chu-Carroll at [0131]). However, this is basically all that Chu-Carroll discloses with respect to concerns.

That is, like Robillard-Murphy and Robillard, Chu-Carroll clearly does not teach or suggest an identifying device for: using the initial concern to explore artifacts in the software system and, based on a result of the using the initial concern to explore artifacts in the software system, identifying a related concern in the software system having a relationship with the initial concern, at least one of the initial and related concerns comprising an artifact other than source code, and automatically computing a content of the related concern based on the initial concern and the relationship between the initial and related concerns, as in the claimed invention.

Likewise, Casati does not teach or suggest these features. Indeed, Casati simply discloses a method of identifying and analyzing business processes from workflow audit logs. In particular, Casati teaches that data mining may be applied to the contents of a data warehouse "to identify patterns occurring during process execution" (Casati at [0034]). Clearly, Casati has nothing to do with the claimed invention.

Likewise, Stone does not teach or suggest these features. Indeed, Stone simply teaches a system for providing a UML diagram of a program which is displayed in a graphical

user interface (Stone at Abstract). That is, like Casati, Stone has nothing to do with the claimed invention.

Therefore, neither Robillard, nor Chu-Carroll, nor Casati, nor Stone teach or suggest an identifying device for: using the initial concern to explore artifacts in the software system and, based on a result of the using the initial concern to explore artifacts in the software system, identifying a related concern in the software system having a relationship with the initial concern, at least one of the initial and related concerns comprising an artifact other than source code, and automatically computing a content of the related concern based on the initial concern and the relationship between the initial and related concerns, as in the claimed invention. Thus, none of these alleged references make up for the deficiencies in Robillard-Murphy.

Therefore, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

### **III. FORMAL MATTERS AND CONCLUSION**

In view of the foregoing, Applicant submits that claims 1-7, 9-22 and 28-36, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

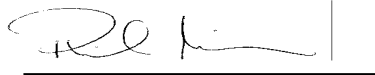
Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

Serial No. 10/802,044  
Docket No. YOR920040071US1

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The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "P. E. Miller", is written over a horizontal line.

Phillip E. Miller, Esq.  
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